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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07/25/03</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-27</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>07/25/2003</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>03/17/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

there has been inconsistency using the word "bar code" and "barcode" however

the two words reflect the same terminology. Also, in page 5 line 61, "Fig 8" should be

changed to "Fig 7" as the last figure is 7 and there is no figure 8 specified.

Appropriate correction is required.

Drawings

2.   The drawings are objected to because there are no labels for all the figures and

block diagram. These figures and block need to have descriptive labels under 37 CFR

1.84(n) and 1.84(o).

Appropriate correction is required.

Claim Objections

3.   Claims 1-8 and 25 are objected to because of the following informalities:

(1) In claim 1, line 3, "an" should be inserted before between "of" and "electronic";

in the same line, "a" should be inserted between "to" and "document";

(2) In claim 25, line 1, "from" should be changed to "form";

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 17 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows.

(1) Claim 17 recites an "electronic form" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se;

(2) Claim 25 further specifies claiming "machine readable medium" which defines an electronic form as encompassing non-statutory subject matter such as "internet message signal" with respect to applicant's specification in page 5, lines 25-30 and page 7, lines 12-19. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a signal embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-8 and 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Xu et al. (US 2004/0065739 A1) in view of Wu et al. (US 2004/0128513 A1).

(1) regarding claim 1:

Xu et al. discloses a method and processor for obtaining printed instances of a

document comprising:

Including a definition of a user data input field in the electronic document data

(page 2, paragraph 23, lines 1-2, page 3, paragraph 30, lines 1-8), for receiving a string

of characters entered in said field (page 3, paragraph 29 "key cryptography" which is

considered as a field users could enter data to have it encrypted, page 2, paragraph 18

"overwrite individual data elements");

Including an embedded program (4 figure 1, paragraph 25, lines 10-19) in the

electronic document data (3A figure 1, paragraph 26, lines 1-7), linked to the user data

input filed (20 figure 2), for generating commands (405, figure 7) to print geometrical

elements (410, figure 7) of a bar code, that represent a series of codewords derived from

the characters in the string (paragraph 50, lines 6-21), each codeword being represented

as a respective configuration of printed geometrical (410 figure 7, paragraph 54, lines 1-

4, paragraph 55, lines 1-4) elements and their background in a respective area of the

bar code (320, 24 figure 6, paragraph 51, lines 1-3);

Xu et al. discloses all of the subject mater as described above except for the

method of distributing copies of electronic document data to a document processors

and the electronic document data containing instructions for printing each instance from a respective one of the document processors.

However, Wu et al. teaches that electronic document could be sent out (distributed) by a document processor via the Internet (paragraph 22, lines 7-8, paragraph 11, lines 1-3) to be modified and printed. In order to have an electronic document printed, the printer driver is invoked. Data contained in the document are first converted to printer command that is retrieved from the printer control firmware (paragraph 25, lines 1-7).

One skilled in the art would have clearly recognized an electronic document or computer file that needs to be distributed or passed before it gets printed or processed by a document processor. Another method was related to the secured printing of the electronic document and tracking of the distribution path of the document after printing (paragraph 7, lines 5-8).

Having said that, the method and processes used by Xu et al. increases the use for distributing of an electronic document to encode any information as a bar code and to have it printed. Thus, the electronic form could be an on line e-application (paragraph 30, lines 4-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the bar code when loading an electronic form as taught by Wu et al. and having it to print the decoded elements of a bar code that is stated in entered as described in the method of Xu et al. to provide more efficiency when printing a decoded bar code.

(2) regarding claim 2:

Xu et al. further discloses, wherein the embedded program (4 figure 1, paragraph 25, lines 10-19) is arranged to make at least one of the configurations dependent on a further factor other than the codeword represented by the configuration that will be decoded upon decoding the bar code (7 figure 1, paragraph 24, lines 5-11, paragraph 25, lines 10-21, paragraph 26, lines 1-7);

(3) regarding claim 3:

Xu et al. further discloses, wherein the embedded program makes the configurations dependent on the specific area in which the codeword is represented, so that mutually different configurations (2, 3 figure 1, paragraph 21, lines 1-9) will result from representing a specific codeword dependent on whether the specific codeword is represented in one region or another (paragraph 24, lines 5-11, paragraph 25, lines 10-21);

(4) regarding claim 4:

Xu et al. further discloses, wherein the embedded program is arranged to control printing of the bar code as a two dimensional bar code (paragraph 6, lines 2-7 "placed on an item" – similar to printing), at least part of the areas having mutually different shapes (paragraph 8, lines 3-9) the embedded program adapting the commands to print the elements of the configuration that is used to represent a codeword according to the shape of the area in which the codeword is represented (35 figure 2, paragraph 34, lines 1-7);

(5) regarding claim 5:

Xu et al. further discloses, wherein the embedded program is arranged to include

additional information in the areas, the additional information being independent of the

codewords represented in the areas, (could be a signature in an electronic form,

paragraph 33, lines 16-21, Xu explains that the bar code could be decoded with an

additional information independent of the initial information that had been stated) the

additional information being included by adding geometrical elements, removing

geometrical elements an/or modifying visual properties of part of the geometrical

elements that represent at least one of the codewords (paragraph 33, lines 21-32), not

affecting a decoded result when the bar code is decoded after scanning (42 figure 2,

paragraph 35, lines 3-11, paragraph 36, lines 1-5);

(6) regarding claim 6:

Xu et al. further discloses, wherein the embedded program is arranged to print

additional geometrical elements that extend from within a region that is defined by all

geometrical elements (101 figure 3A, graphic figure could have geometrical elements,

paragraph 37, lines 6-8) that will be used to decode the barcode in the printed

document, to outside said region among further printed items of the documents, so that

the additional geometrical elements do not affect a decoded result when the bar code is

scanned and decoded (paragraph 37, lines 1-12);

(7) regarding claim 7:

Xu et al. further discloses, wherein the geometrical elements each have a

property that does not affect the decoded data (paragraph 27, lines 1-5) the embedded

program being arranged to set said property in different ones of geometrical elements in

at least one area that represents a codeword differently during printing (paragraph 54,

lines 1-3, paragraph 55, line 3-4);

(8) regarding claim 8:

Xu et al. further discloses, wherein the embedded program is arranged to select

a color and/or grey level density of different geometrical elements differently (paragraph

25, lines 1-10, paragraph 27, lines 1-7), as a predetermine function of position in an

area where the bar code is printed (paragraph 51, lines 2-10 " there is no specific

limitation for the printing the barcode; however the barcode could be printable");

8.   Claims 9-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et

al. (US 2004/0065739 A1) and further in view of Koakutsu et al. (US Patent Number

6,906,812 B2).

(9) regarding claim 9:

Xu et al. discloses a method for processing an electronic document comprising:

A user data input device and a connection for a printer, the electronic document

processor having a loaded electronic form that contains a definition of a user data entry

field for receiving a string of input characters from a user (paragraph 33, lines 5-13),

The processor being arranged to extract and execute an embedded program

from the document, the embedded program being linked to the user data input field, for

generating commands to print geometrical elements of a bar code that encodes a series

of codewords derived from the characters in the string, each codeword represented as a

configuration of printed geometrical elements and their background in a respective area

of the bar code (paragraph 23, lines 1-7).

Xu et al. discloses all of the subject mater as described above except for the user

data input device and a connection for a printer.

However, Koakutsu et al. shows the connection between user data input device

(90 figure 1, column 6, lines 51-52, column 7, lines 44-48) and a printer (1 figure 1,

column 6, lines 51-52, column 7, lines 44-48). A bar code or similar symbol can be

printed accurately with in a specified printing area by a printer. For printing such

symbols, the printer has a symbol image generator for converting display data to a

symbol and has hardware or software for reporting the size of the converted symbol to a

host device. The host sends specific commands and text data for representation in the

printed symbol to the printer for printing (abstract).

Once skilled in the art would have clearly recognized that a user data input

device and connectivity to a printer are the very essential elements to have an

electronic document data printed. The host device or an application running on the host

device only needs to send the information to be displayed to the printer (column 3, lines

13-15). Therefore, it would have been obvious to one of the ordinary skill in the art at

the time of the invention to have a host device or data input device and connectivity to a

printer to as taught by Koakutsu et al. in the method of Xu et al. in order to efficiently

print and process any document.

(10) regarding claim 10:

Xu et al. further discloses, an electronic document processor as claimed in claim 9, wherein the embedded program (4 figure 1, paragraph 25, lines 10-19) is arranged to make at least one of the configurations dependent on a further factor other than the codeword represented by the configuration that will be decoded upon decoding the bar code (7 figure 1, paragraph 24, lines 5-11, paragraph 25, lines 10-21, paragraph 26, lines 1-7);

(11) regarding claim 11:

Xu et al. further discloses, an electronic document processor as claimed in claim 9, wherein the embedded program makes the configurations dependent on the specific area in which the codeword is represented, so that mutually different configurations (2, 3 figure 1, paragraph 21, lines 1-9) will result to represent a specific codeword dependent on whether the specific codeword is represented in one region or another(paragraph 24, lines 5-11, paragraph 25, lines 10-21);

(12) regarding claim 12:

Xu et al. further discloses, an electronic document processor as claimed in claim 11, wherein the embedded program is arranged to control printing of the bar code as a two dimensional bar code (paragraph 6, lines 2-7 "placed on an item" – similar to printing), at least part of the areas having mutually different shapes, the embedded program adapting the commands to print the elements of the configuration that is uses to represent a codeword according to the shape of the area in which the codeword is represented (35 figure 2, paragraph 34, lines 1-7);

(13) regarding claim 13:

Xu et al. further discloses, an electronic document processor as claimed in claim

11, wherein the embedded program is arranged to include additional information in the

areas (could be a signature in an electronic form, paragraph 33, lines 16-21, Xu

explains that the bar code could be decoded with an additional information independent

of the initial information that had been stated), the additional information being

independent of the codeword represented in the areas, the additional information being

included by adding geometrical elements, removing geometrical elements and/or

modifying visual propertied of part of the geometrical elements that represent at least

one of the codewords (paragraph 33, lines 21-32), dependent on the area in which the

codeword is represented in a way that does not affect a decoded result when the bar

code is scanned and decoded (paragraph 37, lines 1-12);

(14) regarding claim 14:

Xu et al. further discloses, an electronic document processor as claimed in claim

13, wherein the embedded program is arranged to print additional geometrical elements

that extend from within a region that is defined by all geometrical elements (101 figure

3A, graphic figure could have geometrical elements, paragraph 37, lines 6-8) that will be

used to decode the bar code in the printed document, to outside said region among

further printed items of the document, so that the additional geometrical elements do not

affect a decoded result when the bar code is scanned and decoded (paragraph 37, lines

1-12);

(15) regarding claim 15:

Xu et al. further discloses, an electronic document processor as claimed in claim 13, wherein the geometrical elements each have a property that does not affect the decoded data (paragraph 27, lines 1-5), the embedded program being arranged to set said property in different ones of geometrical elements in at least one area that represents a codeword differently during printing (paragraph 54, lines 1-3, paragraph 55, line 3-4);

(16) regarding claim 16:

Xu et al. further discloses, an electronic document processor as claimed in claim 15, wherein the embedded program is arranged to select a color and/or grey level density of different geometrical elements differently (paragraph 25, lines 1-10, paragraph 27, lines 1-7), as a predetermined function of position in an area where the bar code is printed (paragraph 51, lines 2-10 "there is no specific limitation for the printing the barcode; however the barcode could be printable");

(17) regarding claim 17:

Xu et al. further discloses, an electronic form that contains a definition of a user data entry field (page 2, paragraph 23, lines 1-2, page 3, paragraph 30, lines 1-8) for receiving a string of input characters from a user and an embedded program linked to the user data input field (3A figure 1, paragraph 26, lines 1-7), for generating commands to print geometrical elements of a bar code, that represents a series of codewords derived from the characters in the string, each codeword represented as a configuration of printed geometrical elements (410 figure 7, paragraph 54, lines 1-4, paragraph 55,

lines 1-4) and their background in a respective area of the bar code (320, 24 figure 6,

paragraph 51, lines 1-3);

    (18) regarding claim 18:

    Xu et al. further discloses, an electronic form according to claim 17, wherein the

embedded (4 figure 1, paragraph 25, lines 10-19)program is arranged to make at least

one of the configurations dependent on a further factor other than the codeword

represented by the configuration that will be decoded upon decoding the bar code (7

figure 1, paragraph 24, lines 5-11, paragraph 25, lines 10-21, paragraph 26, lines 1-7);

    (19) regarding claim 19:

    Xu et al. further discloses, an electronic form according to claim 17, wherein the

embedded program makes the configurations dependent on the specific area in which

the codeword is represented, so that mutually different configurations (2,3 figure 1,

paragraph 21, lines 1-9) will result from representing a specific codeword dependent on

whether the specific codeword is represented in one region or another (paragraph 24,

lines 5-11, paragraph 25, lines 10-21);

    (20) regarding claim 20:

    Xu et al. further discloses, an electronic form as claimed in claim 19, wherein the

embedded program is arranged to control printing of the bar code as a two dimensional

bar code (paragraph 6, lines 2-7 "placed on an item" – similar to printing), at least part of

the areas having mutually different shapes (paragraph 8, lines 3-9), the embedded

program adapting the commands to print the elements of the configuration that is used

to represent a codeword according to the shape of the area in which the codeword is

represented(35 figure 2, paragraph 34, lines 1-7);

(21) regarding claim 21:

Xu et al. further discloses, an electronic form as claimed in claim 19, wherein the

embedded program is arranged to include additional information in the areas, the

additional information being independent of the codewords that are represented in the

areas, the additional information being included by adding geometrical elements,

removing geometrical elements and/or modifying visual properties of part of the

geometrical elements that represent at least one of the codewords, dependent on the

area in which the codeword is represented in a way that does not affect a decoded

result when the bar code is scanned and decoded;

(22) regarding claim 22:

Xu et al. further discloses, an electronic form as claimed in claim 21, wherein the

embedded program is arranged to print additional geometrical elements that extend

from within a region that is defined by all geometrical elements (101 figure 3A, graphic

figure could have geometrical elements, paragraph 37, lines 6-8) that will be used to

decode the barcode in the printed document, to outside said region among further

printed items of the documents, so that the additional geometrical elements do not

affect a decoded result when the bar code is scanned and decoded (paragraph 37, lines

1-12);

(23) regarding claim 23:

Xu et al. further discloses, an electronic form as claimed in claim 21, wherein the geometrical elements each have a property that does not affect the decoded data (paragraph 27, lines 1-5) the embedded program being arranged to set said property in different ones of geometrical elements in at least one area that represents a codeword differently during printing (paragraph 54, lines 1-3, paragraph 55, line 3-4);

(24) regarding claim 24:

Xu et al. further discloses, an electronic form as claimed in claim 23, wherein the embedded program is arranged to select a color and/or grey level density of different geometrical elements differently (paragraph 25, lines 1-10, paragraph 27, lines 1-7), as a predetermined function of position in an area where the bar code is printed (paragraph 51, lines 2-10 "there is no specific limitation for the printing the barcode; however the barcode could be printable");

(25) regarding claim 25:

Xu et al. further discloses, a machine readable medium, comprising an electronic from (paragraph 33, lines 5-13) according to claim 17;

(26) regarding claim 26:

Xu et al. discloses, a method of authoring an electronic document, the method comprising:

including a definition of a field for entering a string of characters in the document (3A figure 1, paragraph 30, lines 1-8, claim 2, line 3, paragraph 50, lines 2-9);

providing software building blocks for building an embedded program (4 figure 1, paragraph 26, lines 1-7) for generating commands to print geometrical elements of a

bar code, so that the generated bar code is decodable according to a predetermined

standard (410 figure 7, paragraph 54, lines 1-4, paragraph 55, lines 1-4);

assembling the building blocks into the program during authoring of the

document, while adapting the embedded program to make a visual aspect of the bar

codes generated under control of the program specific to the document and/or the field,

without affecting a result of decoding the bar code (paragraph 27, lines 1-8);

(27) regarding claim 27:

Xu et al. further discloses, a document authoring machine, for generating an

electronic document that includes a field for entering a string of characters and an

embedded program linked to the field for generating commands to print geometrical

elements of a bar code (paragraph 8, lines 1-8, claim 13), the machine comprising

software building blocks for building the embedded program so that the generated bar

code is decodable according to a predetermined standard, and an editor for assembling

the building blocks when the document is authored (7 figure 1, paragraph 19, lines 7-15,

claim 13-14), the editor (paragraph 8, lines 9-13) providing for adaption of the

embedded program to make a visual aspect of the bar codes generated under control of

the program specific to the document and/or the field, without affecting a result of

decoding the bar code (claim 29, lines 5-15).

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Iimura et al. (Japanese Patent Number 11203379 A) discloses a

bar code printing system and its method as well as a data transfer system for the bar

code printing system that are constituted of a host computer that equipped with a bar

code developing part for developing inputted bar code information into basic bar code

constitution and outputting basic bar code constitution information, and with an imaging

auxiliary information part for outputting auxiliary information for image development so

as to transmit the basic bar code constitution information and the auxiliary information;

and a printer for developing the basic bar code constitution information into a bar code

image based on the auxiliary information, and for printing a bar code by a printing part.

10.   Any inquiry concerning this communication or earlier communication from the

examiner should be directed to Hilina Kassa whose telephone number is (571) 270-

1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Shuwang Liu could be reached at (571) 272- 3036.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Hilina Kassa

January 05, 2006

SHUWANG LIU
SUPERVISORY PATENT EXAMINER